

Multifunctional Furniture

Technical Field

This invention relates to furniture with a multiple use for home and leisure.

Background to the Invention

Modern lifestyle demands versatility. Living spaces are getting smaller while peoples demands on that space increase. Multifunctional furniture has for some time met that design challenge yet still needs to evolve maximising the use of space in the home thus giving more pleasure to those that live there.

Most multifunctional furniture designs incorporate a framed structure either of tubular or wooden construction, others have a more lightweight form with cushioned sections that hinge together. The present invention relates to the later category with the objective of improving what has been done before but also introducing new practical functions into the said furniture.

Examples of prior art found to relate closely to this invention would be US 4293965 A (Hrubec) which discloses a four piece three hinged structure convertible into numerous seating arrangements and a mattress. Also GB 2009594 A (Wentelbed) a three piece two hinged footstool/mattress with fabric covers to all sections and retained within a fabric cover. The above examples have a combined appeal for their compactness and being supposedly light weight and easy to store away. US (Hrubec) contains a useful number of configurations but they still only amount to two basic functions, seating and a mattress. Some of the functions such as the two seated floor sofa require reinforcing members to be added to give the backrest the necessary rigidity for it to be freestanding. In the case of GB (Wentelbed) only the basic functions of a mattress and footstool are provided.

It is the object of the present invention then to provide one piece of furniture that is more compact, easy to use and versatile than all others that have gone before it. Rather than just providing the basic functions, seating a bed and a footrest, several highly practical tables have also been incorporated. Efforts have been made to keep the invention's operation as simple as possible thus no difficult or heavy manoeuvres are needed. Neither do any of the functions require additional reinforcing members to function correctly. The intention is for a daily rather than occasional use thus the narrow unobtrusive rectangular shape of the coffee table/footrest is easily walked around in the centre of a confined room making wall space or transferral from room to room unnecessary. The default function is a footrest designed with a height to extend the seating area of the average sofa. This is to provide optimum comfort for up to three people using a sofa and to avoid problems related to poor blood circulation. All the other functions expand out from this form. The default form is lightweight enough for one adult to carry and firm enough to be stored vertically out of the way.

Disclosure of the Invention

According to the present invention there is provided a multifunctional furniture item comprising four rectangular cushioned blocks each individually covered and interconnected by three hinges. The said hinges pivot semi-circularly and are positioned on alternate long rectangular sides between the blocks. Manipulation of the said structure producing multiple functions, the default being an occasional table/footrest formed with all hinges closed, the four blocks overlying each other, the lowermost flat on the floor and the uppermost serving as an occasional table one way, or a footrest the other. The cover of the table's uppermost block incorporating a durable material for a hard wearing and wipe clean table surface. Additionally, a solid tabletop being secured to the default when required.

Brief Description of the Drawings

A specific embodiment of the design will now be described by way of an example with reference to the accompanying drawing in which:

Figure 1 gives a perspective view of the occasional table with durable surface area, also one part of the solid tabletop that attaches to it.

Figure 2 gives a perspective view of the rectangular footrest with the slip cover that fits over it.

Figure 3 gives a perspective view of the low level table with durable surface area, also both parts of the solid tabletop that attaches to it.

Figure 4 gives a perspective view of the floor sofa with self supporting backrest.

Figure 5 gives a perspective view of the bench style seat, the backrest resting against a suitable object.

Figure 6 gives a perspective view of the bed mattress.

Best Method for Carrying Out the Invention

Reference now should be made to the drawings in which the same reference numerals are used throughout the different drawings to designate the same or similar components.

Referring to Fig.1 this item comprises four equally proportioned high density cushioned blocks 1,2,3,4, each individually covered and interconnected by three upholstered hinges 5,6,7. The said hinges pivot semi-circularly and are positioned on alternate long rectangular sides between the blocks. Manipulation of the said structure produces multiple functions, the default being an occasional table/footrest formed by hinges 5,6,7, remaining closed, blocks 1,2,3,4, overlying each other, 4 being flat on the floor and 1 serving as an occasional table. The cover of 1 incorporating a durable material 8 for a hard wearing and wipe clean table surface. Additionally, a solid tabletop 10 being secured to the occasional table (detail not shown). Fig.2 illustrates that by turning the occasional table alternate way up a comfortable footrest is provided block 1 resting on the floor 4 serving as the footrest. The footrest height and it's rectangular shape extend the seating area of the average sofa thus giving the most favourable sitting position to up to three people equally. Also shown in Fig.2 is the slip cover 12 which fits over the footrest. The slip cover can have a shoulder strap attached to it, (detail not shown) thus becoming a carry case.

Fig.3 demonstrates that by closing hinges 5,7, and opening 6 to the full a low level table is produced, blocks 1,2, on one side 3,4 resting flat beside them. The covers of 2,3, comprise in part of a durable material 9 thus offering a hard wearing and wipe clean table surface. Fig.3 also illustrates both parts of the solid tabletop 10,11, being securable to the low level table (detail not shown). The table's two parts 10,11, join using a suitable method.

It is shown in Fig.4 that by operating hinge 5 and compactly pivoting blocks 2,3,4, they stand upright against the floor to form a floor sofa; block 1 providing the floor seating and 2,3,4, a perfectly angled ergonomic backrest. The cushioned blocks of the backrest have a high density to support several adults without the need of any reinforcing members or additional supports being added. An identically formed floor sofa is achievable through the same procedure, opening hinge 7, and arranging 3,2,1, together as above.

Fig.5 then represents a bench style seat easily formed by closing hinges 5,6, leaving 1 resting on the floor 2,3 overlying it. Hinge 7 is operated enabling 4 to pivot upright and rest against a suitable object as a backrest. It is noted an identical form is achieved alternate side up when the blocks are arranged as above but conversely, block 1 serving as the backrest.

Finally, the full extension of the blocks is shown in Fig.6 which demonstrates a full sized bed mattress. This is produced by opening hinges 5,6,7, enabling 1,2,3,4, to lie flat across the floor providing the sleeping area.

Although some of the preferred embodiments of the present invention have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the general scope and spirit of the invention as disclosed in the accompanying claims.